

IN THE CLAIMS

1. (twice amended) An electrical connector assembly comprising:

a plug having a housing with front and rear ends, the front end including a mating interface, the housing having a top wall, a bottom wall and side walls;

a receptacle having an opening configured to receive the mating interface of the plug;

a deflectable latch including a beam disposed along one of the sidewalls, the beam having a front end secured with-to the plug housing proximate the front end of the plug housing, the beam extending from the front end of the plug housing rearward toward the rear end of the plug housing, the beam having and a rear, free-standing end which is biasable towards the plug to permit the plug and receptacle to be mated with one another, the latch further including first and second latching projections that are biasable towards the plug and that extend from opposite sides of the beam; and

first and second latch mating elements formed within the receptacle opening, the first and second latch mating elements being positioned to securely engage the first and second latching projections when the plug and receptacle housings are fully mated with one another.

2. (original) A connector assembly as set forth in claim 1, wherein the plug includes a cut out portion underlying the rear end of the latch beam for permitting increased inward deflection of the latch beam relative to the plug.

3. (original) A connector assembly as set forth in claim 1, wherein the rear end of the latch beam includes a beveled inner face for permitting increased inward deflection of the latch beam relative to the plug.

4. (original) A connector assembly as set forth in claim 1, wherein the first and second latching projections are longitudinally aligned with one another along the length of the latch beam.

5. (twice amended) An electrical connector assembly comprising:

a plug having a housing with front and rear ends, the front end including a mating interface, the housing having a top wall, a bottom wall and side walls;

a receptacle having an opening configured to receive the mating interface of the plug;

a deflectable latch including a beam disposed along one of the side walls, the beam having a front end secured with the front end of the plug housing, and a rear, free-standing end which is biasable towards the plug to permit the plug and receptacle to be mated with one another, the latch further including first and second latching projections that are biasable towards the plug and that extend from opposite sides of the beam; and

first and second latch mating elements formed within the receptacle opening, the first and second latch mating elements being positioned to securely engage the first and second latching projections when the plug and receptacle housings are fully mated with one another,

~~A connector assembly as set forth in claim 1, wherein, at least a portion of the top, bottom and side walls defining the mating interface, the latch being disposed along one of the first and second side walls, and wherein the overall height of the latch, as measured between the outer edges of the first and second latching projections, is substantially the same as the a height of the mating interface side walls of said housing.~~

6. (previously amended) A connector assembly as set forth in claim 1, further comprising:

a plug keying feature formed along the side wall of the plug housing opposite the latch; and

a receptacle keying feature formed within the receptacle opening for mating with the plug keying feature.

7. (twice amended) An electrical connector assembly comprising:

a plug having a housing with front and rear ends, the front end including a mating interface, the housing having a top wall, a bottom wall and side walls;

a receptacle having an opening configured to receive the mating interface of the plug;

a deflectable latch including a beam disposed along one of the side walls, the beam having a front end secured with the front end of the plug housing and a rear, free-standing end which is biasable towards the plug to permit the plug and receptacle to be mated with one another, the latch further including first and second latching projections that are biasable towards the plug and that extend from opposite sides of the beam;

first and second latch mating elements formed within the receptacle opening, the first and second latch mating elements being positioned to securely engage the first and second latching projections when the plug and receptacle housings are fully mated with one another~~A connector assembly as set forth in claim [[6]] 1, wherein the~~; and

~~plug further comprises~~ a terminal position assurance device (TPA) configured to mate with the housing, the TPA having a front wall and top and bottom opposed latching members extending from the front wall and being configured to engage with the mating interface for securing the housing to secure the TPA to the mating interface, one of the top and bottom latching members defining a second plug keying feature configured to mate with a second receptacle keying feature formed in the receptacle opening.

8. (original) A connector assembly as set forth in claim 7, wherein the second plug keying feature comprises a longitudinal slot formed in one of the top and bottom latching members of the TPA.

9. (original) A connector assembly as set forth in claim 8, further comprising first and second latching protrusions extending from the plug housing, the first latching protrusion being positioned to mate with the longitudinal slot to maintain the TPA in a preset position and the second latching protrusion being positioned to mate with the longitudinal slot to maintain the TPA in a fully engaged position.

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

17. (pending) A connector assembly as set forth in claim 1, wherein a width of the top wall is greater than a height of the side walls.

18. (pending) A connector assembly as set forth in claim 1, wherein an overall height of the latch is substantially the same as a height of the side walls.

19. (pending) A connector assembly as set forth in claim 1, wherein a distance between outer edges of the first and second latching projections is substantially the same as a height of the side walls.

PATENT
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